

## **Locking of a long-lived photon echo in a nonuniform electric field**

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### **Abstract**

A method is developed to control the generation of optical coherent responses in a resonance medium under the action of an external spatially nonuniform electric field. It is shown that a change in the field gradient between the data recording and reading by means of a photon echo suppresses the response generation after the action of the reading pulse, resulting in locking of the data recorded in the medium. The possibilities of using this method in optical memory devices based on a photon echo are discussed.

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